

Amendments to the Claims:

A clean version of the entire set of pending claims is submitted herewith per 37 CFR 1.121(c)(3). This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently Amended) ~~An electronic circuit topology (1)~~ A circuit for driving a predominantly capacitive load, ~~the circuit comprising: (2), where a pulsed electrical power supply is used, with~~
_____ a primary circuit with several components;
_____ a secondary circuit with or connected to [[a]] the predominantly capacitive load;
~~(2), and~~
_____ a transformer device (4) with a primary side (TX1a) and a secondary side (TX1b), connecting the primary circuit with the secondary circuit,
_____ wherein the primary circuit comprises: components comprise:—
_____ a source device (3) supplying power via the transformer device (4) for operating the predominantly capacitive load, (2),—
_____ a drain device (5) for absorbing at least a part of said power, which is reflected back from the predominantly capacitive load (2) during operation, and—
_____ a switching device (6) switch for switching a current on the primary side of the transformer device, and
_____ a periodic pulse generator connected to the switch and configured to apply a series of periodic pulses to the switch for periodically turning on the switch,
[[—]]
_____ wherein the transformer device (4) is of a transformer type with a gap for transforming an input voltage-current-signal on the primary side (TX1a) to a suitable an output voltage-current-signal for supplying the predominantly capacitive load (2) on the secondary side (TX1b),
_____ wherein the source device (3) is in serial connection with the transformer

device (4), the drain device (5), and the switching device (6), and whereby
wherein the transformer device (4) being connected to the predominantly
capacitive load (2) comprises the predominantly capacitive load (2) comprises means
for functioning as forming a resonant tank circuit with the predominantly capacitive
load, as a transformer device (4) in forward mode, and as a transformer device (4) in
flyback mode, so that a single-ended forward flyback circuit for driving predominantly
capacitive loads (2) with pulse-shaped wave forms is achieved.

2. (Currently Amended) ~~Electronic circuit topology (1) according to~~ The circuit
of claim 1, wherein the means for forming the resonant tank circuit comprises at least
one transformer unit (TX1) selected from the group of real transformers and at least
one second inductive unit (L2) on the secondary side (TX1b), whereby the second
inductive unit (L2) can be represented by the a leakage induction of the real
transformer, so that a resonant tank circuit is achieved.

3-5. (Canceled)

6. (Currently Amended) ~~Electronic circuit topology (1) according to claim 1, An~~
for driving a predominantly capacitive load, where a pulsed electrical power supply is
used, with:

a primary circuit with several components,
a secondary circuit with or connected to a predominantly capacitive load, and
a transformer device with a primary side and a secondary side, connecting the
primary circuit with the secondary circuit, the primary circuit components comprise:
a source device supplying power via the transformer device for
operating the predominantly capacitive load
a drain device for absorbing at least a part of said power, which is
reflected back from the predominantly capacitive load during operation, and
a switching device for switching a current on the primary side,
wherein the transformer device is of a transformer type with a gap for

transforming an input voltage-current-signal on the primary side to a suitable output voltage-current-signal for supplying the predominantly capacitive load on the secondary side,

wherein the source device is in serial connection with the transformer device, the drain device, and the switching device,

whereby the transformer device being connected to the predominantly capacitive load comprises the predominantly capacitive load comprises means for functioning as a resonant tank circuit, as a transformer device in forward mode, and as a transformer device in flyback mode, so that a single-ended forward-flyback circuit for driving predominantly capacitive loads with pulse-shaped wave forms is achieved, and

wherein the drain device (5) comprises a power absorber unit (V2), a capacitance unit (C1), and a diode (D1) for returning power to the supply device (3) via an external down-converter.

7. (Currently Amended) ~~Electronic circuit topology (1) according to wherein the switching device (6) comprises a control unit (V3) for generating a pulse-shaped signal, a switching unit (S1) for switching the current flowing through the primary side (TX1a) of the transformer device (4)~~ A circuit for driving a predominantly capacitive load, the circuit comprising:

a primary circuit;

a secondary circuit connected to the predominantly capacitive load; and

a transformer device with a primary side and a secondary side connecting the primary circuit with the secondary circuit,

wherein the primary circuit comprises:

a source device supplying power via the transformer device for operating the predominantly capacitive load,

a drain device or absorbing at least a part of said power, which is reflected back from the predominantly capacitive load during operation,

a switch for switching a current on the primary side of the transformer

device, and

_____ a diode unit (D2) reverse connected across the switch so as to conduct a reverse current through the primary side of the transformer when the switch is turned off,

_____ wherein the transformer device is of a transformer type with a gap for transforming an input voltage-current-signal on the primary side to an output voltage-current-signal for supplying the predominantly capacitive load on the secondary side,

_____ wherein the source device is in serial connection with the transformer device, the drain device, and the switching device, and

_____ wherein the transformer device comprises means for forming a resonant tank circuit with the predominantly capacitive load.

8. (Canceled)

9. (Currently Amended) ~~Electronic circuit topology (1) according to~~ The circuit of claim 1, wherein the predominantly capacitive load (2) is realized by ~~comprises at least one gas discharge lamp based on a dielectric barrier discharge lamp (La1) for generating light waves, preferably UV light waves.~~

10. (Currently Amended) ~~Electronic circuit topology (1) according to~~ The circuit of claim [[1]]9, wherein the dielectric gas discharge lamp (La1) has a ~~an operating power being preferably in the range from >0 W to ≤ 20,000 W, more preferably from ≥ 500 W to ≤ 10,000 W, and most preferably from ≥ 1,000 W to ≤ 5,000 W, most preferably the power is about 3,000 W, and the discharge lamp produces light having a wave length preferably being in the range from ≥ 100 nm to ≤ 380 nm, more preferably from ≥ 180 nm to ≤ 320 nm, and most preferably from ≥ 200 nm to ≤ 300 nm.~~

11. (New) The circuit of claim 1, wherein the drain device comprises a power absorber unit, a capacitance unit, and a diode for returning power to the supply

device via an external down-converter.

12. (New) The circuit of claim 1, wherein the primary circuit further includes a diode reverse connected across the switch so as to conduct a reverse current through the primary side of the transformer.

13. (New) The circuit of claim 1, wherein the predominantly capacitive load comprises at least one dielectric barrier discharge lamp.

14. (New) The circuit of claim 6, wherein the switching device includes a switch, and a diode reverse connected across the switch so as to conduct a reverse current through the primary side of the transformer when the switch is turned off.

15. (New) The circuit of claim 6, wherein the switching device includes:
a switch; and
a periodic pulse generator connected to the switch and configured to apply a series of periodic pulses to the switch for periodically turning on the switch.

16. (New) The circuit of claim 6, wherein the predominantly capacitive load comprises at least one discharge lamp.

17. (New) The circuit of claim 6, wherein the predominantly capacitive load comprises at least one dielectric barrier discharge lamp.

18. (New) The circuit of claim 10, wherein the operating power is ≥ 500 W and $\leq 20,000$ W.

19. (New) The circuit of claim 10, wherein the operating power is ≥ 1000 W and $\leq 5,000$ W.

20. (New) The circuit of claim 10, wherein the wavelength is ≥ 180 nm to ≤ 320 nm.

21. (New) The circuit of claim 10, wherein the wavelength is ≥ 200 nm to ≤ 300 nm.